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| 09/899,097      | 07/06/2001  | Satoshi Tsuda        | 0229-0652P          | 2705             |

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| EXAMINER |
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MAKI, STEVEN D

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| ART UNIT | PAPER NUMBER |
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1733

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DATE MAILED: 07/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/899,097

Applicant(s)

TSUDA, SATOSHI

Examiner

Steven D. Maki

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 May 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,5 and 8-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5 and 8-10 is/are allowed.
- 6) ☒ Claim(s) 1 and 11-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>4</u> . | 6) <input type="checkbox"/> Other:  |

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- 1) The disclosure is objected to because of the following informalities:

In table 1, the following changes should be made to correct an obvious error:

(1) under "Ref. 1A" change "Fig. 9" to --Fig. 8-- and

(2) under "Ref. 2A" change "Fig. 10" to --Fig. 9--.

This application contains nine figures instead of ten figures. There is no figure 10.

Figures 8 and 9 are described as views of reference tires, which were used to compare with the tire shown in Fig. 2". "Ref. 1A" and "Ref. 2A" are reference tires, which are compared with examples 1A (Fig. 2), 2A (Fig. 2) and 3A (Fig. 2). Ref. 1A is described as having not sipes and thereby corresponds to figure 8 which does not illustrates sipes.

Ref. 2A is described as having sipes and thereby corresponds to figure 9 which illustrates sipes. The above suggested changes are reasonably conveyed by the original disclosure (would not constitute new matter) since they correct an obvious error, which one of ordinary skill in the art would know the appropriate correction.

Appropriate correction is required.

- 2) The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

- 3) Claim 13 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

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In claim 13, the subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention (i.e. the new matter) is the subject matter relating to the axial grooves being arranged "in one half cycle". Page 7 of the original disclosure describes "the axial grooves 21 are disposed every one and half (1.5) cycle" (emphasis added) instead of "one half cycle". In claim 13, it is suggested to change "one half cycle" to --one and a half cycle--.

4) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5) **Claims 1, 11, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Europe '550 (EP 1010550).**

Although Europe '550 and this application have the same inventor, Europe '550 is available as prior art under 35 USC 102(b) because Europe '550 was published (6-21-00) more than one year prior to the filing date (7-6-01) of this application. Europe '550 is available as prior art under 35 USC 102(b) even though applicant's earliest prior document was filed (7-6-00) less than a year after the publication date (6-21-00) of Europe '550 because "the 1 year ban of 35 U.S.C. 102(b) dates from the U.S. filing date and not from the foreign filing date" MPEP 201.13, page 200-79, August 2001. Also see 35 USC 119.

Europe '550, directed to improving wandering performance without causing uneven wear, discloses a pneumatic tire having a row of shoulder blocks. Each shoulder block has a convex curve at the tread edge such that the tread edge consists

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of convex curves. The convexly curved outer side face of the block extends radially inwardly from the top surface of the block to a radial distance, which is more than 80% (e.g. 100%) of the height of the shoulder block. Europe '550 teaches increasing the radius of the convex curve from the top surface towards the radially inside.

Europe '550 does not specifically recite using a radius of 1.5 to 4.5 times a circumferential length of the block.

As to claim 1, it would have been obvious to one of ordinary skill in the art to use a radius of 1.5 to 4.5 times a circumferential length of the block in Europe '550's tire since Europe '550, which teaches an example radius of .5 to 1.4 times the circumferential length of the block, teaches using a convex curve at the tread edge to improve wandering performance without causing uneven wear (the same benefit disclosed by applicant) - only the expected results (improved wandering performance without causing uneven wear) being obtained.

The limitation of the curvature becoming zero at the radial distance H would have been obvious since (1) Europe '550 teaches increasing the radius of the convex curve from the top surface towards the radially inside and (2) Europe '550 illustrates zero curvature thereafter. Europe '550's teaching to increase the radius to  $R_{max}$  is not considered to be a teaching to avoid a radius of infinity. Furthermore, Europe '550 contemplates zero curvature immediately below  $R_{max}$  as illustrated in figure 3. In other words, Europe '550's disclosure to increase the radius of the convex curve from the top surface of the block radially inward and to use zero curvature below the convex curve

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fairly suggests reducing the curvature to zero as claimed. No unexpected results for zero curvature at distance H have been shown.

As to claim 11, see angled tread edge illustrated in figure 1.

As to claims 14 and 15, the limitation of distance H being more than 80% radial block height h (claim 14) or radial distance H being 100% radial block height h (claim 15) would have been obvious in view of Europe '550's teach that the convexly curved outer side face of the block extends radially inwardly from the top surface of the block to a radial distance, which is more than 80% (e.g. 100%) of the height of the shoulder block.

6) **Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Europe '550 (EP 1010550) in view of Japan '505 (JP 2-182505) or Rhode (US 4765384).**

As to claim 12, it would have been obvious to one of ordinary skill in the art to round the edge between the tread surface and the sidewall of the blocks of the tire of Europe '550 in view of (a) Japan '505's teaching to round edges of blocks using a small radius of 1.5-2.5 mm so that stiffness and ground pressure of the block are uniform or (b) Rhode's teaching to round edges of blocks of a truck tire.

#### **Allowable Subject Matter**

7) **Claims 5 and 8-10 are allowed.**

**Claim 13 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112 set forth in this Office action.**

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The prior art of record including Europe '550 (EP 1010550), Kabe et al (US 5211780), Hale (US 2236903), Great Britain '338 (GB 460338) and German '448 (DE 1028448), fails to suggest either (1) "each of said curvature of the convex curve and said curvature of the concave curve gradually diminishes towards the radially inside from the tread edge" (claim 5) in combination with the remaining limitations of claim 5 or (2) "said curvature of the convex curve and said curvature of the concave curve gradually diminish radially inward from the tread edge" (claim 13) in combination with the remaining limitations of claim 13; it being emphasized that (1) Great Britain '338 (the only reference to show a tread edge having convex and concave curves), fails to suggest gradually diminishing the curves radially inward from the tread edge and (2) Europe '550 contains no teaching to gradually diminish a concave curve towards the radially inside from the tread edge.

#### Remarks

8) Applicant's arguments with respect to claims 1 and 11-15 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments filed 5-19-03 have been fully considered but they are not persuasive.

Applicant argues that Europe '550 fails to disclose zero curvature as in claim 1. This argument is not persuasive since (1) Europe '550 teaches increasing the radius of the convex curve from the top surface towards the radially inside and (2) Europe '550 illustrates zero curvature thereafter. Europe '550's teaching to increase the radius to  $R_{max}$  is not considered to be a teaching to avoid a radius of infinity. Furthermore,

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Europe '550 contemplates zero curvature immediately below  $R_{max}$  as illustrated in figure 3. In other words, Europe '550's disclosure to increase the radius of the convex curve from the top surface of the block radially inward and to use zero curvature below the convex curve fairly suggests reducing the curvature to zero as claimed. No unexpected results for zero curvature at distance H have been shown.

9) Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

10) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is 703-308-2068. The examiner can normally be reached on Mon. - Fri. 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Ball can be reached on (703) 308-2058. The fax phone numbers

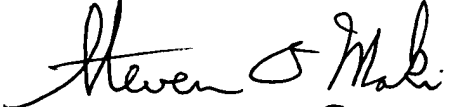


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for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Steven D. Maki  
July 23, 2003

  
STEVEN D. MAKI  
PRIMARY EXAMINER  
GROUP 1300  
A 1733  
7-23-03